

CENTRAL INTELLIGENCE AGENCY

CLASSIFICATION

SECRET/CONTROL - U.S. OFFICIALS ONLY
SECURITY INFORMATION

INFORMATION REPORT

25X1

CD NO.

25X1 COUNTRY Germany (Russian Zone)

DATE DISTR. 15 April 1952

25X1 SUBJECT The Elektrochemisches Kombinat Bitterfeld:
General Situation Report

NO. OF PAGES 4

NO. OF ENCLS.
(LISTED BELOW)SUPPLEMENT TO
REPORT NO.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES, WITHIN THE MEANING OF TITLE 18, SECTIONS 793 AND 794, OF THE U.S. CODE, AS AMENDED. ITS TRANSMISSION OR REVELATION OF ITS CONTENTS TO OR RECEIPT BY AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. THE REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

25X1

1. Russian personalities

- a. A Russian named Fëdorov arrived in October-November at Elektrochemisches Kombinat Bitterfeld and assumed the post of Deputy General Director of the factory. He is about fifty years old. He does not speak German.(1)
- b. It is believed that Duk(2) has returned to the USSR,
- c. A Russian named Pobichev is working with Kononov. He arrived in or about July 1951.

2. German personalities

Dipl. Ing. Drebes of the technical norms department (TAN) succeeded in leaving with his furniture for West Germany in late November 1951.

3. Research projects

According to Dr. Erich Bauer, the most important research project at present in hand is the design of a one-half scale plant for the production of pure titanium tetrachloride (TiCl_4) from ilmenite.(3)

4. Metallic sodium

The experimental plant was producing metallic sodium at the average daily rate of 80 kilograms in late November, when it broke down completely. One cell had been repaired and was producing about 8 kilograms per diem by 6 December. The process used is very costly, but the metal is required by Bunawerke Schkopau, SAG Kautschuk.

CLASSIFICATION

SECRET/CONTROL - U.S. OFFICIALS ONLY

SECRET/CONTROL - U.S. OFFICIALS ONLY

-2-

5. Very pure aluminum

The very pure aluminum produced in the factory is not rolled, extruded, machined, or treated in any other further way in the factory. It is despatched cast in bars.

6. Aluminum

The new aluminum plant is now partially in operation, and is working at perhaps two-thirds capacity. Most of the equipment has been installed, and the main difficulty appears to be shortage of alumina (Tonerde).

7. Alumina

- a. An experimental plant for the production of alumina (Tonerde) from clay (Ton) by the pure Speketer process is to be erected in 1951. This process involves the use of concentrated hydrochloric acid, and there may be difficulty in obtaining the special apparatus required.
- b. The combined Speketer-Penjakoff process (Kombiniertes Verfahren) for the production of alumina from clay, which is being developed in the factory, is briefly as follows: the clay is dried at 700°C, and the aluminum oxide and impurities dissolved in 40% hydrochloric acid. The solution is concentrated (eindampfen) either in a spray-tower (Spritzturm) or in an immersion converter (Tauchbrenner). In the former case burning generator gas is passed through the tower, and in the latter (and more elegant) case through the solution. In each case the water and some of the hydrochloric acid is removed in the burning gas, and a solid mixture of the hydrated chlorides of aluminum, iron, and other impurities is left. The hydrated chlorides are heated to 400° C in a rotary furnace (Drehofen), and decompose to the oxides. This mixture is known as crude alumina (Rohtonerde). The crude alumina is mixed with sodium sulphate and carbon and is heated to 1000-1100° C in a Penjakoff furnace by burning generator gas. Soda lye is added to the resulting mixture of sodium aluminate, iron oxide, and sodium sulphate, and the iron oxide and other metallic impurities are filtered off. The filtrate consists of sodium aluminate dissolved in the soda lye. Carbon dioxide is passed through it, and the precipitated aluminum hydroxide is filtered off. This is dried and heated, and pure alumina (aluminum oxide) results. One ton of alumina can be won from about seven tons of clay by this process. The present experimental plant has a capacity of about one ton alumina per diem.

8. Aluminum chloride

The aluminum chloride electrolysis plant has been closed down. It was not working satisfactorily because of difficulties due to sublimation.

9. Magnesium

Dr. Bauer is supervising the development of a new process for the winning of anhydrous magnesium chloride. Dry hydrated magnesium chloride from the Stassfurt potassium deposits is heated in a concentrated HCl atmosphere. The experimental plant can produce about one ton of anhydrous magnesium chloride per diem.

10. Freon

The von Heyden factory in Radebeul near Dresden, VVB Alcid, is now making Freon 12 in large quantities under the direction of Dr. Mueller.(4)

SECRET/CONTROL - U.S. OFFICIALS ONLY

SECRET/CONTROL - U.S. OFFICIALS ONLY

-3-

11. Iron carbonyl powder

Henneberger(5) has succeeded in producing a special iron powder which is almost as good as iron carbonyl powder for certain purposes (magnetic cores). Kabelwerk Obersapree (KWO), SAG Kabel, requires ten tons per month of this powder.

12. Plastics

The factory intends to install a press for pressing "Vinidur" (hard plastic) plates. Progress has been held up because there is no factory in the German Democratic Republic which is capable of machining the components of the press.

13. Caustic soda

Dr. Bornhak is designing a new mercury cell which is to be erected for the manufacture of NaOH.

14. Quarterly conference of heads of sections

The following points were among those made at the conference of German heads of departments and sections for discussing progress in the third quarter of 1951:

- a. Potassium chlorate was in very short supply, and the KOH plant nearly had to stop operating. The supply position had improved in November.(6)
- b. Production of potassium permanganate for the first time exceeded 200 tons per month.
- c. Irregular collection by the main customer (Wismut AG) was still causing difficulties in the production of hydrochloric acid.
- d. The still for tricresylphosphate was not operating satisfactorily and needed repair. It was hoped that Stahlwerk Silbitz, SAG Marten, would cast a new one.
- e. Soda was in very short supply.
- f. The production of formic acid from calcium formate was started in September.
- g. It was hoped to produce methylene chloride at the rate of 100 tons per month in 1952.
- h. It was hoped to develop a method of producing (polyvinyl chloride?) plastics from methanol. Supplies of methanol were plentiful, and carbides would thereby be saved.
- i. It was hoped to start production of polyvinyl fluoride plastics in 1952.
- j. Production of hexachlorocyclohexane was to be stepped up considerably in 1952.
- k. It was hoped to produce metallic titanium in 1952.
- l. The Gesarol (insecticide) plant was to be enlarged.
- m. An enamel flux medium (Emailflussmittel) has been developed and has stood up well to tests.

SECRET/CONTROL - U.S. OFFICIALS ONLY

SECRET/CONTROL - U.S. OFFICIALS ONLY

-4-

- n. Seamless boiler tubes were urgently required for the power station. Some of size 95 (mm?) were arriving via Rostock. Normally about 75 tons altogether would be required annually, but much more was needed at present. It was hoped that ash-pipes (Asche-leitungen) would soon arrive illegally from West Germany.
- o. It was expected that a large order for light metal beds would be placed soon for delivery in 1952.
- p. Ferrotungsten was being produced for Czechoslovakia.
- q. Asbestos paper was required by Werk Nord and was in very short supply. It was hoped to receive 4 tons soon from the Netherlands, and further quantities of 12, 20, and 40 tons were on order.
- r. Sulphuric acid was expected to become difficult to obtain in the near future. Two small people-owned factories (VEBs) had stopped making it.
- s. Orders had already been received for 25,000 tons of chlorine to be delivered in 1952.

- 25X1 (1) [] Comment: An earlier report describes Fëdorov (spelled Feodorov)
25X1 as arriving at Bitterfeld about 15 August 1951 to assume the position of chief
engineer. []
- 25X1 (2) [] Comment: Duk has been described as Assistant to the Director General
25X1 on Personnel Questions. []
- 25X1 (3) [] Comment: Titanium tetrachloride is used in the production of smoke
screens. There is no evidence that this project is connected with the efforts
to produce metallic titanium. See paragraph 14 (k) above.
- 25X1 (4) [] Comment: The connection of this paragraph to the rest of the report
is not clear.
- 25X1 (5) [] Comment: Henneberger is head of Inorganic Laboratory II at
25X1 Bitterfeld, []
- 25X1 (6) [] Comment: There are plentiful deposits of potassium chlorate at Stassfurt.

SECRET/CONTROL - U.S. OFFICIALS ONLY